

REMARKS

Disposition of Claims:

Claims 1-9 are all the claims pending in the application, and have been rejected.¹

Claim Rejections Under 35 U.S.C. § 103:

Claims 1-3, 6, 8 and 9 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Plamthottam, et al. (U.S. Patent No. 4,906,421) in view of Tynan (U.S. patent No. 4,028,302). Further, claims 4 and 5 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Pamthottam, et al. in view of Tynan as applied to claim 1 above, and further in view of Burbank, et al. (Producing adhesives and sealants with a twin-screw. Adhesives & Sealants Industry. June/July 1998. Vol. 5, Issue 5, p. 44). For the following reasons, Applicant respectfully traverses these rejections.

The claims, as amended, patentably distinguish over the prior art for two independent reasons:

- First, claim 1 has been amended to make it clear that in the final extruded adhesive composition, the rubber and the resin are dissolved in a solvent, which is clearly not the case in Plamthottam.
- Second, the Examiner's proposed modification to the process of Plamthottam (namely, to eliminate the solvent removal steps (see Office Action at p. 6) would render the process inoperable for its intended purpose - namely producing a tape. This is a classic example of non-obviousness.

¹ The Examiner inadvertently included claim 7 in his rejection, even though claim 7 was cancelled in the Amendment filed on June 25, 2009. The rejected claims should included claims 1-6, 8 and 9.

Regarding the **first reason**, claim 1 has been amended to clarify that the invention relates to "A method for the continuous extrusion of an adhesive formulation " and to make it clear that, in the final extruded adhesive composition, the rubber and the resin are dissolved in the solvent.

Thus, the argument presented at item 14 of the outstanding Office Action - according to which the previous main claim could be read on an intermediate product of Plamthottam — should thus be inapplicable against the amended main claim as per admission of the Examiner himself,

Regarding the **second reason**, the Examiner states that "one of ordinary skill would recognize that simply removing [from the teaching of Plamthottam] the solvent removal steps would obtain the process of the instant claims, and one would be motivated to eliminate these steps in order to produce a liquid composition". This statement evidences the non-obviousness of the proposed combination as the proposed combination would produce a liquid composition, instead of the intended solid tape.

First of all, even the passage of Plamthottam at col. 11, lines 19-25 - cited by the Examiner in support of the allegation that Plamthottam does not require a solvent-free extrudate - irrefutably affirms that also in this case "a single solvent removal unit" is used. Hence, it is clear that the amount of solvent which possibly remains in the extrudate is "residual" — as also admitted by the Examiner — and cannot certainly dissolve the other ingredients of the formulation, contrary to what is explicitly claimed by the present application. Applicant emphasizes in this respect that the formulation extruded according to the presently claimed invention contains at least about 45-50% of solvent (see paragraph bridging pages 1 and 2) and possibly even more, i.e. an amount which certainly cannot be considered either residual or minor.

Secondly, the process of Plamthottam is specifically intended for the production of a tape (see e.g. col. 4, lines 2 and 40, col. 4. line 15 and examples), i.e. a solid product. Accordingly, the allegation of the Examiner that the skilled in the art would "obviously" modify such process in order to obtain a liquid composition is fully unsupported and deprived of any sound basis, paradoxically inter alia in view of the assertion of the Examiner himself at item 15 of the outstanding Office Action according to which "the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art." In the present case, Applicant has a claimed process producing a liquid solution vs. a prior art process producing a solid tape, so as the presence of a basic structural difference is irrefutable.

The modification of the process of Plamthottam in order to devise the present invention remains fully unobvious even in view of the teachings of the further reference US-4 028 302 (Tynan).

On one hand, Tynan discloses a process for preparing concentrated solutions of acrylonitrile — i.e. a thermoplastic polymer - in a solvent having a boiling point greater than 150 °C such as (dimethylformamide (b.p. 153 °C.), dimethylacetamide (b.p. 165 °C.), dimethylsulfoxide (b.p. 189 °C.), and tetramethylene sulfone (b.p. 285 °C) (see col. 5, lines 46-51). Such solvents are necessary for the successive operation of spinning (col. 2, lines 25-26).

On the other hand, the present invention relates to a process for preparing a formulation containing rubber and tackifying resin - which are not thermoplastic polymers - in a suitable solvent, exemplified by hexane, pentane and dichloropropane (see claim 8), all having a boiling point below 100 °C, namely 69 °C, 36.1 °C and 96 °C, respectively. The presence of the solvent is dictated by the need of rendering easy the spreading of such formulations on a support.

Accordingly, the only real point of contact between the processes of Tynan and the present invention is the use of a twin-screw extruder for producing a solution. Asserting on this basis alone (see items 5 and 16 of the outstanding Office Action) that the skilled in the art would have purposively taken from Tynan solely the generic teaching of maintaining the other ingredients of the formulation dissolved in a solvent (while neglecting all the other teachings of Tynan concerning the specific ingredients involved), and directly translated it into the process of Plamthottam, **so as to radically change the nature of the latter from the production of a solid tape into the production of a liquid solution, is fully unsuitable for duly supporting an obviousness rejection. As noted above, this is a classically non-obvious!**

Conclusion:

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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